

BROOKHAVEN BULLETIN



March 28, 1975

Volume 29 - Number 13

Weisskopf To Speak At BNL

Dr. Victor Weisskopf, of the Massachusetts Institute of Technology (MIT), will present a Laboratory-wide seminar entitled "The Promise of High Energy Physics" on Wednesday, April 2 at 3 p.m. in Berkner

Noted for his theoretical work in quantum electrodynamics and nuclear reactions, Dr. Weisskopf has taken a leading role in explaining to the public, science and its role in society. He has also been a major force in the development of physics research at

Dr. Weisskopf, who formally retired last July after 28 years at MIT, was Director-General of the European Center for Nuclear Research (CERN) from 1960 to 1966, and head of MIT's Department of Physics from 1967 to 1973.

Dr. Weisskopf was chairman of the High Energy Physics Advisory Panel (HEPAP) from its founding until January, 1974. HEPAP advises ERDA's Division of Physical Research. He chaired the HEPAP Subpanel on New Facilities, formed in May, 1974 to consider the future needs for high energy facilities and determine the major steps required in this field over the next decade. In June of that year the Subpanel issued a report containing specific recommendations and general comments on the future requirements of high energy physics.

A naturalized United States citizen since 1943, Dr. Weisskopf, was born in Vienna, Austria, in 1908. He received a Ph.D. from the University of Gottingen, Germany, in 1931 and served as a research associate at the University of Copenhagen from 1932 to 1933 and at the Institute of Technology in Zurich from 1934 to 1936. During this time, he worked with such distinguished physicists as Born, Wigner, Schroedinger, Pauli and Bohr.

Dr. Weisskopf came to the United States in 1937 to join the faculty of the University of Rochester where he served as an instructor and an assistant professor for six years. In 1943, he joined the Manhattan Project at Los Alamos, N.M.

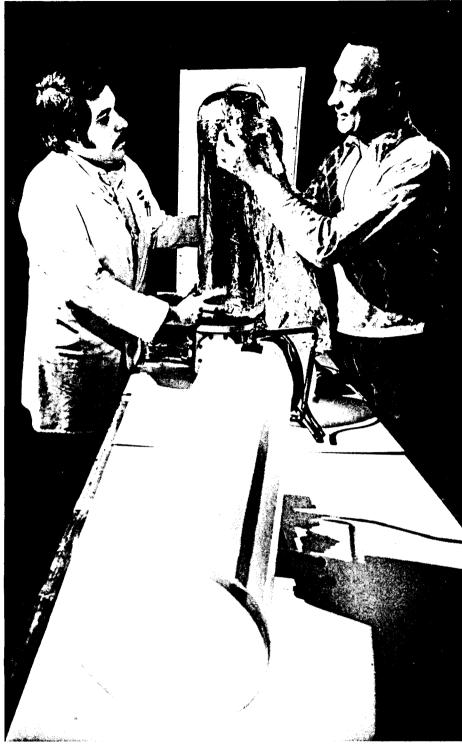
In 1945, he was appointed associate professor of physics at MIT, with a one-year



leave of absence to complete his work at Los Alamos. In 1946, he came to the Institute as a full professor, and later was in charge of the theory group in MIT's Laboratory of Nuclear Science.

In 1960, Dr. Weisskopf became Director-General of CERN. During his stay at CERN, he was awarded an honorary Ph.D. from the University of Vienna on the 600th anniversary of that institution and honorary Sc.D. degrees from Oxford and Upsala Universities and from Yale University. His book, Knowledge and Wonder; The Natural World as Man Knows It, published while he was in Geneva, was selected by the Thomas Alva Edison Foundation as the best science book of the year for youth.

Dr. Weisskopf left Geneva and returned to MIT in 1966 as Institute Professor, a (Continued on page 2)



Published by the Brookhaven National Laboratory Public Relations Office

Arnold Esper (left) and Walter York wrap super-insulation around a finished mylar target.

A Look Behind The Scenes At AGS

Within one of the grey buildings of the AGS complex is a tight-knit group that designs, builds and maintains all the hydrogen and other liquid gas targets used at

The Cryogenic Target Group, which has eleven members, is headed by Al Schlafke. When an experimenter wants a target built, he approaches Schlafke with a rough idea in mind. The idea is then turned into a usable design by Bob Meier, the Group's design engineer.

Working from the design, the men in the target shop, Arnold Esper, Bill Sieger and Walter York, create a finished target. According to Bill Patton, who supervises tarret construction and operation, it normally takes four or five months to build and install a target, although there are exceptions. The complex target system used by the MIT/BNL Group in the discovery of the J-particle took over a year to complete.

Targets vary from one experiment to another. Most are made of mylar, a strong flexible plastic, shaped into cylindrical vessels. The most frequently used target material is liquid hydrogen, a rich source of protons for particle collisions. The Group has also made targets of metal and glass, and is presently working on a complicated Styrofoam target for the Multi Particle Spectrometer (MPS).

The temperature of liquid hydrogen is -425°F, lower than any other element except helium. Because of this ultra-low temperature, the metal or mylar vessels containing the liquid are superinsulated with the same material used to insulate the Lem module on the Apollo moon missions.

No matter how effective the insulation, some of the liquid hydrogen warms up and vaporizes. It vaporizes or "boils off" at a rate of 2.2 liters (2.3 quarts) per hour making it necessary to replenish the target con-

tinuously with more hydrogen. A 45 liter (48 quart) reservoir is situated above the target in the experimental set-up. Hydrogen is fed into the reservoir from a 175 liter (185 quart) vacuum-insulated tank, brought to the target area from the Lab's 40,000 gallon hydrogen storage facility. These tanks are emptied and must be replaced twice during a 24-hour period.

Designing and building targets is only part of the job performed by the Group. They are also responsible for the maintenance and safe operation of the targets. Currently, four hydrogen target systems are in use on the AGS floor, and each one must be checked once an hour. Carl Murray, Leonard Kelmar, Jerry Novak and Dick Lehman take turns keeping a 24-hour watch on the targets.

Hydrogen is a highly explosive gas so all leaks must be guarded against. Stringent (Continued on Page 3)

NOVA Explores a Bygone Era

On Sunday, March 30 NOVA will explore "The Lost World of the Maya." The program will be broadcast over Channel 13 at 7:30 p.m. and again on Tuesday, April 1 on Channel 21 at 8:30 p.m.

For over a thousand years the Maya civilization grew and flourished in the rain forests of Central America. Discovered and finally destroyed by the Spanish Conquistadors, it was lost until explorers re-discovered it in the 19th century.

Eric Thompson, an archaeologist who has been trying to unravel the mystery of the Mayans for 45 years, takes the viewer on a pilgrimage of the Mayan world. While visiting the ruins of all the great Mayan cities, he charts the rise and fall of one of the strangest civilizations the world has ever known.

Oceanography Subject Of BNL Lecture

Bernard Manowitz, DAS, will deliver the last in a series of Brookhaven Lectures on energy and the environment. Focusing on the Brookhaven Coastal Shelf Oceanography Program, the lecture will be held on Wednesday, April 2 at 8 p.m. in Berkner Hall.

The BNL Oceanographic Program is designed to assist ERDA in evaluating the environmental impact of energy related activities in the Atlantic coastal zone. It is pertinent to such problems as off-shore siting of nuclear reactors, off-shore drilling and other anthropogenic disturbances to the coastal ecosystem.

Manowitz came to Brookhaven in 1947. In 1960 he was made Associate Head of the Chemistry and Chemical Engineering Division and in 1962 he was made Head of the Radiation Division in the Department of Applied Science. At the present time he is Associate Chairman Environmental Programs of DAS.

Manowitz has had a long interest in research pertinent to the environment. His initial efforts from 1944 to 1946 in Oak Ridge included research on methods for preventing the release of radioactive xenon and krypton into the atmosphere.

At BNL his recent work has included studies of rates of oxidation of SO₂ in power plant plumes and studies on the origin of sulfur compounds in the stratosphere. His most recent efforts are in organizing and coordinating the coastal oceanography program at the Laboratory.

Manowitz received a B.S. degree in chemical engineering from the Newark College of Engineering, and a M.S. degree in chemical engineering from Columbia University.

A buffet supper will be served at the Brookhaven Center before the lecture beginning at 6 p.m. Reservations should be made in advance calling Ext. 3541 before 5 p.m. Refreshments will be available in the lobby of Berkner Hall immediately after the lecture.

Goldhaber Re-Elected To URA Board of Trustees

Gertrude Goldhaber, Physics, was reelected recently to a three-year term as Trustee-at-Large of the Universities Research Association (URA). The URA Board of Trustees governs the Fermi National Accelerator Laboratory at Batavia, Illinois.

On March 13, she gave a colloquium talk on the status of physics in the People's Republic of China at the Physics Department of New York University. She visited China last September with a group of American physicists that included Laboratory Director George Vineyard and former Director Maurice Goldhaber.

She described the present educational policies of Chinese universities and the kinds of physics research engaged in at the various research institutes she visited. In particular, she noted the excellent literature reproduction method in China which enables Chinese physicists to keep abreast of scientific research from all over the world.

Official & Special Events

Monday, March 31 Brooklyn College Chemistry Society Tour Tuesday, April 1 Polytechnic Institute of N.Y. Tour Wednesday, April 2 Navy Meeting Thursday, April 3 BNL Lecture - 8:00 p.m., Berkner Hall Friday, April 4 Lowell Technological Institute -American Nuclear Society Tour

Monday, April 7 ERDA High Energy Program Review -Berkner Hall (April 7-8) Friday, April 11 ERDA Hot Atom Chemistry Meeting -Chemistry Department APS - New York Section Meeting - BNL & SUNY, Sponsors (April 11-12)

Pool/Gym Close For Easter

The swimming pool and gymnasium will be closed to all activities on Easter Sunday, March 30.

Soccer

Ken Batchelor

The first two places in the Winter Indoor Soccer League involved the same two teams as last year, namely AGS and Physics. However, this year the positions were reversed with AGS taking the championship. In general the competition was dominated by the defensive players, with a total of only 50 goals being scored in the 48 games played. This compares with a total of 181 goals scored last year.

Final League Standings

					Goals		
	P	W	D	L	F	A	Pts.
AGS	24	16	6	2	19	4	38
Physics	24	9	4	11	13	22	22
DAS &							
Medical	24	7	5	12	9	18	19
Chemistry							
& Biology	24	5	7	12	11	15	17
Leading goal	score	rs: F	Batch	elor	9. N	/leve	rs 8.

Leading goal scorers: Batchelor 9, Meyers 8 Oldham 5, Friedberg 3, Press 3.

BNL 3 vs Hofstra University 2

On Saturday March 8th, BNL opened the outdoor season with a home game against Hofstra in which they were victorious by a score of three goals to two. Playing against the wind and the slope BNL started strongly and in the first 10 minutes came close to scoring with good attempts by Batchelor, Oldham and Levine, the latter hitting the goal post with the goalkeeper beaten.

In spite of the BNL pressure, the Hofstra defense held firm and a quick break away left the BNL defense flat footed, allowing a Hofstra forward to score from close range. BNL continued to attack after this reverse and Levine and Oldham again came close to scoring with good shots that the strong wind steered wide of the goal.

This pressure did not result in a BNL goal and it was Hofstra who went further ahead with another opportunist goal. This further reverse stung BNL into action and Oldham beat the fullback neatly before crossing to Batchelor who scored with a left foot volley from close range.

After this BNL took control of the game and after two near misses from Cox, Oldham took a hard shot from the edge of the area which the Hofstra goalkeeper could only parry and Batchelor, following up fast, scored from close range to even the score.

Then after five minutes of further BNL attacking Cox pushed a ball through the middle and Batchelor won a race over both the fullback and goalkeeper to score the third goal of his hat trick and complete the scoring for the game.

Now that the Winter Indoor Season has been completed, Soccer will move to Monday evenings at 5:30 p.m. at the Recreation Field. All players and beginners are welcome to come along.

Islanders Ticket Raffle

Tickets for the Islanders playoff games will be raffled off in Berkner Hall on Thursday, April 3 at 12:30 p.m. Winners do not have to be present to claim tickets. You will be notified by phone if your number comes up.

Stony Brook Events

Wednesday, April 2

The Women's Film Series will present Agnes Varda's "Le Bonheur" and Germaine Dulac's "The Smiling Madame Beudet" at 7 p.m. in the Stony Brook Union Auditorium.

Thursday, April 3

Theatre in der Josefstadt, Vienna's internationally famed repertory company, will be visiting the campus to lecture and present several performances of Luigi Pirandello's "Six Charactors in Search of an Atuhor." The play will be performed in German tonight, tomorrow and Saturday at 8 p.m. in the Stony Brook Union Auditorium; admission is \$2 for the general public and \$1 for students.

David Schecher will perform a Master of Music degree recital on the trombone at 8:30 p.m. in Lecture Center 105.

Thursday Night Cinema presents "Un Chien Andalou," a short, and "No Exit," a film by George Tabori, based on the play by Jean Paul Sartre. The films begin at 8:30 p.m in Lecture Center 100.

Saturday, April 5

The Saturday Film Series will screen Alfred Hitchcock's "Dial M for Murder" and "Notorious." The movies begin at noon in the Stony Brook Union Auditorium.

Slo Break Basketball

One game left in the season and only two teams remain in contention; the Persuaders and the Condors.

The first game, played under a special rule allowing a team with only four players to pick up a fifth from a special pool, was won on the foul line. Both teams had 21 field goals but the Persuaders shot 50% from the free throw line compared to 26% for the Spuds.

Box Scores			
Persuaders	Pts.	Spuds	Pts.
Garrison	11	Kowalski	0
Rowley	14	Nordstrom	18
Vaughn	8	McKeever	10
Shuman	0	Erenkaufer	2
Casey	0	*Sautter	16
Hill	2		
James	13		
Final Score	48		46

*played under special rule

In a hard fought game, which set the season high for total team fouls of 50, the Condors defeated Roga to stay in contention for a playoff berth.

Box Scores			
Condors	Pts.	Roga	Pt
Thomas	16	Brown	21
Erdman	5	Albright	4
Vignato	10	Lawrence	15
Brooks	25	Baltz	0
Hill	3	Cotten	18
Nettles	8	Scott	C
Sutter	2	Glenn	9
Final Score	69		67

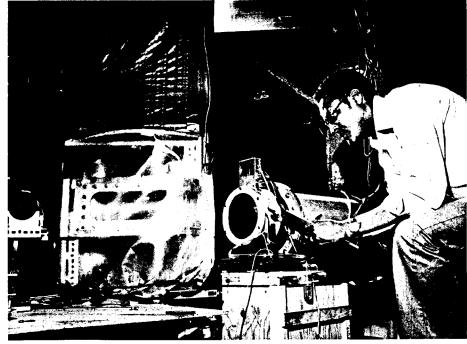
Correction: The season high for total points scored in game was not last week's 147 but 158 in a game between the same teams – Roga and Spuds.

Guides Light Path At BNL

Almost 1000 visitors came to the Lab last year, and all were escorted from building to building by a specially trained group of Tour Guides. To date, the group has been exclusively female but Jane Garron, Personnel who coordinates the Tour Guides, would like to see some men join.

Tour Guides are nominated by their departments and are required to go through an indoctrination course with Health Physics & Safety, giving them access to the Reactor. Before going on their first tour, they are briefed by Virginia Sayre, Special Programs Coordinator. The services of the Tour Guides have already been called on nine times this year and were required on 17 occasions last year.

Anyone who would like to nominate a person from their department to be a Tour Guide should contact Jane Garron, Ext.



Carl Murray makes an hourly check on a liquid hydrogen target system installed in the beam line of an experiment.

Target Group

(Continued)

safety precautions are taken in the design of a target system. All parts of the system are vented to the outside so escaping gas can be removed quickly and efficiently. The target and hydrogen storage tanks are kept under vacuum. All equipment is explosion-proof; vacuum pump motors, relays and switches are non-sparking and all lights in the area are encased to render them explosion-proof.

Before a hydrogen target is mounted into an experiment it must be inspected by the Safety Review Board of the Accelerator Department. "During the 14 years I have been here, we have had a perfect record," commented Arnold Esper, one of the target builders.

The Cryogenic Target Group has also designed and constructed targets for the Fermi National Accelerator Laboratory (FermiLab). To date they have built two for them, a 3-foot hydrogen target and one that measured 7 by 48 inches.



Charles Frank, fills a 175-liter vacuum insulated tank from the BNL 40,000-gallon liquid hydrogen storage facility.

Rifle and Pistol Club News

Our daylight pre-supper intramurals will start on March 25th. In case you missed our last business meeting, check with Bob Liegel for details.

Short lunch time practices have started too. Why not sharpen up for the intramurals on Tuesday and Friday noons. Several regulars will be on hand so you can count on company.

Road Runners — Pedal Pushers

Sunday, May 4 has been chosen by the Runners/Cyclists Committee for the Spring

A late-morning start for the 5 and 10-mile runs and the 17.5 mile bike race is planned. Exact times for entry and start will be announced in a future *Bulletin*.

Further plans for the 3000-mile run are also being developed and will be announced shortly.

Bowling News

Grace Fales

Grac

3/11 Highlights: J. Scesny 222/251/221/658 scratch series, W. Piel 707 gross series, J. Roesler 200, R. Nelson 215, C. Bachsmith 209, R. Wilson 202, W. Piel 216, K. Asselta 202, and J. Petro 209.

3/18: After 10 weeks the Neutrons are leading the league with a record of 75½-34½, followed by the Lucky Strikes with 72½-37½. Highs for the night: R. Larsen 236/212/621 scratch series, B. Brehm 233, R. Nelson 227, K. Asselta 202, E. Fales 200, and P. Klotz 211.

Pink League

The star for the night was C. Eterno with a 223 followed by a 175. Kay Hunt 195. Nice bowling, girls! Other highs were M. German 175, and B. Nine 175. The Spares are still in first place with the Alley Opps and Fiscal Assets neck and neck for second place.

Black and Blue League

Highs for the night: C. Tomesch 212/599, P. Lebitski 188, D. Antonio 181/164, D. Pollock 166, K. D'Ambrosio 161, and N. Mayeski 161. Pots were won by Bill Sells 216 and Pat Lebitski 241.

Highlights of the Men's Long Island Industrial Invitation Tournament

BNL's team finished 5th of the sixteen entering teams. Nice bowling guys! Highs for the final week were J. Scesny 206/557, R. Larsen 203/556, C. Buzzeo 195/539, and R. Nelson 199/534. Congratulations, men!



Following a luncheon in their honor, the current BNL Tour Guides assembled for a commemorative photograph. They are (front left to right) Janice Berry, Reactor; Dede Seay, Personnel; Betsy Schumejda, DAS; Sharon Rosenhagen, Director's Office; Eleanor McCaw, AUI; (center left to right) Frances Scesny, Personnel; Audrey Blake, Information; Tony Fridae, Physics; Francine Benante, DAS; Carolyn Eterno, Photography & Graphic Arts; (rear left to right) Marge Stoeckel, Fiscal; Rosemary Mack, Accelerator; Kay Hunt, Personnel; Joan Perullo, Staff Services; Dottie Marelli, Personnel; Betty Pergan, Personnel and April Donnegain, Physics. Not present for the picture were: Louise Kilcoyne, Director's Office; Jackie Larrie, Medical; Helga Pirozzi, Photography and Elaine Rowland, Chemistry.

March 28, 1975 Brookhaven Bulletin

Columbia Science Writers

Harnessing The Sun's Energy

What does one do with 3000 aluminum cans, some black paint and glass and a few scraps of fiberglass insulation? Simple, build a heat sink solar furnace.

Arnold Roesch, of Physics, has never liked to waste anything, especially something as useful as aluminum. One day he read an article in a magazine that gave the steps for making a solar furnace using aluminum cans, so decided to give it a try.

He placed an ad in the Brookhaven Bulletin for aluminum cans, stating "no lot too small." He got excellent results. One woman brought him 1500 cans packed into a 9-passenger station wagon and another sent two via the interlab mail system. Arnold praised the mail system, claiming the cans arrived in perfect shape despite their flexibility, but "politely discouraged"

Arnold now has more than enough cans to construct a solar panel, which when completed will be 20 feet long and 12 feet high. By recycling aluminum cans rather than buying the raw material, he estimates that he has saved approximately \$1.25 a square foot. With ten cans per square foot this amounts to a savings of \$300.

He has constructed a small prototype solar panel which has proved very successful. The best temperatures recorded inside the panel were 210°F when the temperature outside was 52°F and 221°F in 63°F weather. The panel is a three foot square box lined with aluminum can halves sprayed with flat black paint. Aluminum is a good heat conductor and black absorbs heat as opposed to silver which reflects it. The box is covered with two thicknesses of glass that prevent the heat generated in the panel from escaping. The other five sides of the box are covered by fiberglass insula-

Heat from the sun passes through the glass and is absorbed by the cans within. A small air blower attached to one end of the panel blows cold air through the panel where it is heated and leaves as warm air.

When the large panel is constructed, the warm air will be funneled into a yet-to-beconstructed den, where it will be passed over a bed of pebbles forming a heat sink. The pebbles will retain the heat for those cloudy days. Arnold estimates that sufficient heat will be absorbed by the pebbles to heat the den for four days.

The large panel will be outfitted with a ½ horsepower blower. Arnold plans to install a thermostat, connected to the blower so heat from the panel can be drawn on

If the solar panel proves successful, he hopes to build a cottage on his six acres of land in Manorville, using the sun to heat it. Also in the back of his inventive mind is a plan to run copper pipes through the solar panel to heat domestic water. The only problem is that he will have to tell his family to take fast showers.

There has been one drawback to his inventiveness - he has had to cut down several trees and quite a few bushes around his house to clear the path between his solar panel and the sun. But he thinks it is worth it.

After the solar furnace what is next on his list? Would you believe a steam generator to pump water? Well, look where it got Benjamin Franklin and Thomas Edison.







(Continued)

rank given sparingly by MIT to recognize distinction. During the year before his retirement, he was named James R. Killian

Among his numerous activities and memberships, Dr. Weisskopf is a fellow of the American Physical Society and was its president for 1960-61. He received the Max Planck Medal of the German Physical Society in 1956 for his contributions to physics, and the Cino del Duca Award for humanism in science. He is a member of the National Academy of Sciences and the Federation of American Scientists. He was on the board of editors of "Nuclear Physics" and "Annals of Physics," and is author of numerous articles on nuclear physics, quantum theory and radiation theory.

Golf News

Our 1975 activities are underway. Elections are now in progress and a pre-season get together is planned for Friday, April 18 at the Recreation Building after work. Bring \$1.00 for hot dogs and beer.



Arnold Roesch with his prototype solar panel and materials used to build it.



Ten students from the Columbia University Graduate School of Journalism spent two days at the Lab last week questioning scientists about their research programs. Dr. Paul Papavasiliou, Medical, (bottom left) spoke to them about new developments and trends in the treatment of Parkinson's Disease. Murrey Goldberg, DAS, (top left) described BNL's Engineering and Systems Division where energy systems are modeled and analyzed. Ron Peierls (above right) discussed the place of high energy physics in today's world.



Arrivals & Departures

Arrivals Michael J. Dagg App. Science

Alan H. Rosenberg	Biology				
Departures					
Francis M. Costello	Hlth. Phys. & Safety				
Judah M. Frankel	App. Science				

Chen Lee Manns Medical

Hospitality Plans Trip To City

The Hospitality Committee is planning a group railroad trip to the city on Wednes-

Departure will be at 8:45 a.m. from the Patchogue Long Island Railroad station. Any train to Patchogue may be used for the return trip.

The round trip cost will be between \$2 and \$3, depending on the number of people who take the trip. Children under 6 years of age are free.

If you are interested, please sign up as on as possible by calling Ruth Dimmle 751-6342 or Rosemary Jewett, Extension

Hospitality News

The next Hospitality coffee will be held Tuesday, April 1, at 9:30 a.m., in the Brookhaven Center. Babysitting will again be provided at no cost in the same area.

Deputy Commissioner Geraldine M. Sheridan will discuss the work and responsibilities of the Suffolk County Department of Consumer Affairs.

🔵 BROOKHAVEN BULLETIN 😭

Published Weekly for the Employees of **Brookhaven National Laboratory**

CARL R. THIEN, Editor JEAN BURKE, Assistant Editor CAROL GOLDSTEIN, Copy Preparation

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Cafeteria Menu Week Ending April 4, 1975

5 1 7		
Monday, March 31		
Cream of Tomato Soup		
Manicotti & 1 Veg	1.00	
Breaded Pork Chop & 1 Veg.		
Tuesday, April 1		
Vegetable Beef Soup		
Meat Loaf & 1 Veg.	1.05	
Western Omelet & 1 Veg.		
Wednesday, April 2		
Chicken and Rice Soup		
Broiled Beef Liver w/Onions & 1 Veg.	1.05	
Special		
Davy Jones Fish Fry \$1.25 plus tax	•	
Thursday, April 3		
Navy Bean Soup		
Beef Hash & 1 Veg.		
Southern Fried Chicken & 1 Veg.		
Friday, April 4		
Manhattan Clam Chowder		
Fish & Chips		
Roast Sirloin of Beef & 1 Veg.		
_		

Adult Swimming Classes

Adult swimming lessons will not be given next week, March 31, April 1 and 2. Classes will resume on Monday, April 7.



Charles Tomesch, Instrumentation, will retire from the Laboratory on March 31, 1975.

Mets Baseball Tickets

Tickets for the 1975 Mets baseball season will go on sale at the BERA Sales & Services Office in the Cafeteria starting Thursday, April 3, at 7:30 a.m. There will be no limit on the number of tickets you may buy.

The BERA schedule includes 41 night games, 12 Sundays, 2 holidays and 1 twinight double header.

In the event the Mets go into the World Series this year, only employees who buy tickets to the games during the season will be eligible to put their names in the hat for the playoff and series drawings.

In the schedule, the Sunday games which are all day games, are indicated in bold type.

4/20	Chicago
5/2 5/4 5/6 5/7 5/9 5/11 5/12 5/13 5/14 5/26 5/27 5/28 5/30 5/31	Montreal Montreal Pittsburgh Pittsburgh Cincinnati Cincinnati San Francisco San Francisco Los Angeles (holiday) Los Angeles Los Angeles San Diego San Diego
6/1 6/2 6/4 6/6 6/8 6/20 6/22 6/23 6/25 6/27 6/29 6/30	San Diego Houston Houston Atlanta Atlanta Pittsburgh Pittsburgh St. Louis (twinight) St. Louis Philadelphia Philadelphia Chicago
7/1 7/2 7/17 7/18 7/20 7/21 7/22 7/23	Chicago Chicago Atlanta Atlanta Houston Houston Cincinnati Cincinnati
8/4 8/5 8/6 8/10 8/11 8/12 8/13 8/15 8/17	Montreal Montreal Montreal Los Angeles Los Angeles San Diego San Diego San Diego San Francisco San Francisco
9/1 9/2 9/3 9/5 9/7 9/15 9/16 9/17 9/18	Pittsburgh (holiday) Pittsburgh Pittsburgh St. Louis St. Louis Montreal Montreal Chicago Chicago

Classified Advertisements

Philadelphia

Philadelphia

Placement Notices

9/19

9/21

Each week the Personnel Office lists personnel placement requisitions, currently being processed. The purpose of these listings is, first, to give notice of all non-scientific an opportunity to request consideration for themselves through the Personnel Office. In filling vacancies, the Laboratory's objective is to give first consideration to present employees, as follows: employees within the immediate group having the vacancy, employees within the department or division, employees within the Laboratory as a whole.

For further information regarding a placement notice. or to request consideration for an available position, contact Supervisor, Personnel Placement & Development, ex-

53. TECHNICIAN - A.A.S. degree or equivalent in electronics with experience in construction, maintenance and operation of electronic instrumentation and high vacuum systems. Shift work. Physics Dept.

54. TECHNICIAN - A.A.S. degree or equivalent in electrical/electronics technology with experience in operation and maintenance of high-powered electrical equipment and associated electronic controls and monitoring devices. Shift work, Accelerator Dept.

55. SECRETARY - Department of Applied Science.

56. HELPER A - Central Shops Division. Application deadline: April 4, 1975

57. SEWAGE TREATMENT PLANT OPERATOR A, GROUP LEADER - Plant Engineering Division. Application deadline: April 4, 1975.

58. MESSENGER - Staff Services Division.

59. TOOL AND INSTRUMENT MAKER, GROUP LEADER - Central Shops Division.

Autos & Auto Supplies

71 TOYOTA 1200 - 45,000 mi, good all round cond, new tires. \$750. Steve, Ext. 4008, 265-1436.

TIRES - 2-13" w/Chrysler rims. Susan, Ext. 3609.

TIRES - 5-15", 5-13", asst cond. Ext. 4172, 475-0144. 70 FORD PICK-UP - 6 cyl, s/s 8' bed, excel cond. Bob, Ext. 4672, 929-4753.

74 MG - Butterscotch midget conv, am/fm, very low mi, like new, must be seen. 588-9548 after 5.

69 SUZUKI 500 T - 5000 mi, Harley Davidson saddle bags, rack, sissy bar, rack box, gold, must see. Sacrifice, \$500. Ext. 4060, 289-3360.

72 VW - 411 wagon, auto trans, new radial snow tires, am/fm, 8 track stereo, excel cond. 878-1711 after 5.

70 GREMLIN - Std, new clutch, ball joints, 44,000 mi, air cond, good oil & gas. \$1000. Christman, Ext. 4394,

RIMS - 2-13", 5 hole, \$5; 1-15" Ford rim, 5 hole, \$5. O. Booker, Ext. 4719.

68 RAMBLER - 4 dr, 6 cyl, good mi, good cond. Asking \$600.744-7170.

71 KAWASAKI 500 - Fully equipped, 18,000 mi, \$600 or best offer; 3 helmets (1 brand new), \$50. Schiro, 286-8234 after 6.

70 VW FASTBACK - New disc brakes & alternator, excel cond, runs like new, good body. \$1225. Ext.

66 T-BIRD - Good cond, fully equipped. \$600. Ext. 3121, 744-5261.

68 VW - Motor excel, body good. \$650. 765-5344 after 6.

67 TEMPEST - Excel cond, must sell. Marc, 589-5689. MICHELIN ZX - Radials, 2-155x13, tubeless, b/w, never used. \$50. Gil, 924-3283.

68 CHEV CAMARO - 6 cyl, 3 spd, mag wheels, all new tires, \$800, George, Ext. 2534.

74 JAWA 350 - Less 2000 mi, extras, mint cond, always garaged. Travers, Ext. 3292.

TIRES - 2-13" rims w/tires, fit Dodge Dart, hubs in-

cluded. \$10. A. Vary, Ext. 3659, 698-1331 after 6. 66 DODGE TRUCK - 21/2 ton, 12' body, excel cond,

2000 mi on new engine. \$900. 281-1658. 67 FORD TOW CAR - Auto, cooler, aux gas tank, air

shocks; 1970 22' trailer, tandem, self-contained, a/c. 65 PLYMOUTH BELVEDERE - 4 dr sedan, radio, new

tires, new shocks, rear dr damaged, runs well. Best offer over \$90, 941-4328.

72 CHRYSLER - Newport Royal, 2 dr ht, vinyl top, full power, am/fm, comfort pack, new brakes & battery, excel cond. Asking \$2100. Bill, Ext. 4665, 732-9102.

70 PONTIAC CATALINA - 4 dr sedan, 360 V8, ps/pb, auto, new exhaust, battery & brakes. 281-7485 after 5.

67 PONTIAC TEMPEST - V8 auto, radio, runs fine. Asking \$450. Ext. 2032, 286-3455.

65 TRIUMPH 650 - Neatly chopped, many extras, excel cond, must be seen. Cliff, 727-3505.

Boats & Marine Supplies

16' RUNABOUT - 40 hp Evinrude, trailer, factory fiberglass, wood. Steve, Ext. 4008, 265-1436.

ELCO CLASSIC - 1932, sleeps 6, 32' sedan, 135 hp, dinghy w/3 hp Evinrude, excel cond. \$4350. 878-1711 after 5.

TRULOG KNOTMETER - 0-12 knots, model TL400, new \$100; Kenyon alcohol stove, model 205, used, \$50. 669-9202.

Miscellaneous

PACHYSANDRA - Good ground cover, 50 plants for \$4.744-5448.

NEW TUBES - Four 4CX250R, \$8 ea; four 8438, \$8 ea; 3 hi amp SCR No. 2191H, \$8 ea. Ext. 4058, 286-0436. GOLF CLUBS - Bag & cart. \$50. A. Vary, Ext. 3659,

STEREO CONSOLE - W/8 track deck, am/fm, MX1°,

turntable, 8 speakers. \$200. Al, Ext. 4592. UNIVOX AMP - 2 pickups, Kent elec guitar, com-

plete, like new. \$100, no less. Ernie, Ext. 3280. 8 TRACK TAPE RECORDER & PLAYBACK - 2 mikes & jacks. \$60. Al, Ext. 4592.

REFRIGERATOR - Westinghouse Coppertone, frostfree, 16 cu ft, 3 yrs, excel cond. \$175. 732-7570.

AMPEG AMP - Gemini I, G Hangstrom III guitar. \$160. Walt. 281-5328.

ZENITH COLOR TV - Needs work, 23" floor model. 929-4270 after 6.

WRIGHT CHAIN SAW - 16" reciprocating blade, gas powered, A-1 cond, just serviced. A. Cambell, Ext.

OPERA!! - Two \$6 tickets to Met Opera's production La Boheme, Thursday, April 17, 8 p.m. J. Weeks, Ext.

DINING RM SUITE - Dk mahogany, excel cond, 7 pieces, server, china, Ig table. Ext. 2265.

SECTIONAL - 3 piece w/matching turquoise chair, scotchguard upholstery, \$150; 3 walnut tables, cocktail, \$25. 588-7989.

GE COLOR TV - 23" screen, early Am cabinet, needs work, too big for room, must sell. Betty, 589-0461.

FOR EASTER - Blonde, blue-eyed female companions, sealpoint Siamese kittens. 751-2655.

SWITCH COVERS - Thick ceramic, gilt & floral light switch covers, various shapes. 744-8901.

CLARINETS - 2, B-flat w/case, very good cond. \$35

ea. G. Schiro, Ext. 3743, 286-8234. GIRLS' BIKE - 20" banana scat hi-riser, 3 spd, speed-

ometer. \$40. Ext. 3121, 744-5261. PORTABLE WASH MACHINE - Kenmore, 3 cycle, 2 spd, does heavy lg loads & sm delicate loads, excel

cond. \$125 firm. 289-8167. KITTENS - 6 weeks, free to good home. Josh, Ext.

2403 Tu & Th. SKIS - Head master, 190 cm, Look-Nevada bindings, \$40. Nauman, Ext. 3412, 286-3764 eves.

STROLLER - Delux model w/very comfortable ride, rarely used. \$22, orig \$45. Shekhar, 751-3885.

55 GAL FISH TANK - Stand, hood, heater, air pump, new Dynaflo filter, diatom filter, fish, plants, etc. Jack, Ext. 4255.

WHITE CRIB - Lullabye w/matching dresser & rocker. Excel cond. \$125. Jack, Ext. 2907.

AIR CONDITIONER - Philco 8000 BTU, \$135; child's desk, \$10; 2 bookcases, dumbbells, pole lamp, 286-

1/2" DRILL & PRESS - \$30; fan 16", \$7.50; 2-man rubber raft, \$20; deep fryer, \$5; hair dryer, \$5; port-a-crib, no mattress, \$5. 286-2032.

GIRLS' BIKE - Ross 3 spd, full size, hand brakes. \$50. Bob, 473-3987

LHASA APSO PUPPY - Female, AKC, parents on premises, champ bloodlines. \$150. Byars, 589-1323.

HO RACE TRACK - Large Aurora, 12 cars, much track, many accessories incl, excel cond. \$25. Ext. 4032

12 CAST IRON RADIATORS - Asst. sizes, hot water or steam, best offer. Mike, Ext. 4851.

GAS RANGE - 30", see thru door, good cond; 10'x7', outdoor shed. Bob, 929-4270 after 6.

BIKE EXERCISER - W/rowing motion, \$30; belt massager, 2/sp control, \$35. 929-8231.

TABLE LAMP - Provincial white w/frosted globe, gold pedestal, 36", detail work. \$25, orig \$125. 981-5993

18" COLOR ADMIRAL TV - Tube weak, but still has color. \$20. M. Greene, Ext. 4484.

LIVING RM FURN - Complete Thomasville Delphian classic w/matching sofa, chairs, lamps, includes end, library, coffee & round tables, excel cond. Ext. 3427, 751-2463.

BABY GRAND - W/bench in walnut by Cable, good cond. Ext. 3427, 751-2403.

GOLF BAG - 8" tan & brown, excel cond. \$15. Helen, Ext. 3716.

DINING RM FURN - Blonde, rectangular table, 4 chairs, matching china closet, reasonable. 363-8919.

ACETYLENE TORCH - W/full tank & presto lite attachment, hose & tip. \$40. Nauman, Ext. 3412, 286-3764 eves.

72 VOLVO SERVICE MANUAL - 140 series, \$10. 589-4363 after 6.

FLUORESCENT LIGHT FIXTURE - W/bulbs, 4', \$8; 3', \$6; 3 pair jeans, 32-31, \$3 ea. 744-5871.

PICK-UP CAMPER - 8' w/cab over bunk, propane stove, light, head, other extras. \$600. Leo, Ext, 3272.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

For Sale

BROOKHAVEN HAMLET - 3 bedrm, 2 bath, ranch, family rm, fireplace, basement, 1/3 wooded acre, assumable mortgage. 286-2032.

SETAUKET - 2 story saltbox, 5 bedrm, 2 baths, living rm w/fireplace, eat-in kitchen, full basement, 2 car garage, ½ acre, walking distance to university & elem school. \$57,500. Landy, 751-1295/751-0583.

For Rent

ROCKY PT - Apt, upstairs of new mother-daughter house, 3 bedrm, garage, w/w carpet. \$340/month. Karen, Ext. 3623.

MEDFORD - 3 rm apt, furn or unfurn, \$225/month includs util. Avail April 1st. 475-8456.

Wanted

OLD PANTY HOSE - For doll stuffing. Dorothy, Ext.

INFORMATION - Concerning day camp or day care centers in the Shirley-Moriches or Wading River area. Roger, Ext. 3578.

PEOPLE - To help make a pancake & sausage breakfast a success, Yaphank fire house, April 6, 9-1, Boy Scout troop 79. For further information call 924-5203. KITCHEN CABINETS - Fran. Ext. 4167.

PARTS - For 1961 75 hp Johnson outboard lower unit. Ext. 2023, 363-6940.

HOME - For 2 dogs, spayed female, beagle mix; male, shepherd mix, both good-natured, obedient, need room to run. G. Schiro, Ext. 3743, 286-8234.

HOME - For 4 yr old black male dog, part Lab, use to large family, friendly, playful w/children. 732-

HOME - For lost puppy, tan w/floppy ears, if no home is found he will have to go to the pound. 924-3842 anytime.

SUNFISH - Used, good cond, reasonable price. Pat, Ext. 4255, 929-4942.

CALCULUS TUTORING - 2 semester students need help. Pelase call Dale, Ext. 3367 1-5, Ext. 2512 after 5. HOUSE/APT - To rent or sit, months of July & August, couple with great references, dependable. Carol, Ext.

USED SWING SET - W/slide, 2" tubing pref. Ralph, Ext. 4171.

BASKETBALL & RIM - 286-8512.

HOUSE OR APT - To rent or sit for months of July & Aug, refs. Susan, Ext. 3609 or Ginny, 473-6900.

Car Pools

BELLPORT - To join or form, 8:30-5, flexible. Ric, Ext.

MT SINAI - To join or form, Mt Sinai area. Fran, Ext. 4167.

Services

POTTERY LESSONS - Hand building, potter's wheel tech, clay & glaze comp, exper professional, Sound Beach. 821-0253.

PLUMBING HEATING ALTERATIONS - New work & repairs, lic & insured. Walter, 732-1913.

CLEANING SERVICES - Rug shampooing, waxing, window celaning, general house cleaning. 924-6118.

TAXPAYERS - Federal & State income tax forms prepared in the privacy of your home or mine. 475-8330. MUSIC FOR ALL OCCASIONS - Anne, Ext. 3336.

EXCEL TYPING - Manuscripts, theses, etc. Susan, Ext. 3609, 928-6082 after 5:30.

HAVE TRUCK - Odd jobs done, light hauling; attics, yards, cellars cleaned, reasonable. 727-1329.

OAK CORD WOOD - Well seasoned, split & deliv. \$70 full cord, \$40 ½ cord. 727-1329. TREE SERVICE - Pruning, removal, cabling, topping,

chain saw work. 727-1329. LIKE FRESH VEGETABLES? - Rototilling, grow your own this year, reasonable prices. 286-3377 after 6. HOUSE CLEANING - Dependable woman avail M-

Sat, 2-5, Patchogue area, refs. Penny, 286-0963. BABYSITTING - Mother of 3 will sit in my home, breakfast, lunch, snacks, playmates, very reasonable. Mrs. Hoeffener, 286-1294.

ALTERATIONS - Hems, reasonable rates. Sharon, 924-

Classified Ad Policy

Deadline is 12 noon Monday for publication Friday of the same week.

- 1. The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees. 2. All items for sale or rent must be the advertiser's
- 3. Ads for material acquired for resale in association with a full or part-time business cannot be accepted.

For Sale: Auto & Auto Supplies

4. Firearms offered for sale or trade may not be brought on site

Send to: Brookhaven Bulletin, Building 460, 40 Brookhaven Avenue (Ext. 2345).

- 5. Ads not carried because of space restrictions will be held for publication in the next issue 6. Ads are run only once and must be resubmitted if they
- are to be repeated. 7. Ads should be restricted to 20 words or less and typed or printed on the form provided, and must bear the employees signature.

Employee's Signature		Life No	Ext
		(Na	me & Phone No. To Call)
Office of the Brookhaven Bulletin, Room 111, 4	u brooknaven Avenue.		
Ads concerning property for sale or rent canno		ecial Real Estate A	d forms are available at the
	Services		
For Sale: Auto & Auto Supplies For Sale: Boats & Marine Supplies For Sale: Miscellaneous	Carpools Lost & Found	Print or type	e your ad in 20 words or less
For Sale: Auto & Auto Supplies	Wanted	Check x th	e heading applying to your ad.